

## **Exhibit 1—STAGES OF DEVELOPMENT**

The following definitions are provided to assist the applicant determine the appropriate program for the technology.

### I&I Category 1

Stage 1: Conceptual: This is the period during which a concept is scientifically proven or is shown to be potentially valid by the application of a test-of-principle model. The objective of this stage is to validate through tests or analyses the performance and implementation potential of a concept.

Stage 2: Technical Feasibility: This is the period during which it is proven possible within the technological state of the art to produce a new product or develop a process from the concept. The objective here is to confirm the target performance of the new product through experimentation and/or accepted engineering analysis and to ascertain that there are no technical or economic barriers to implementation that cannot be overcome by development.

### I&I Category 2

Stage 3: Development: This is the period during which the needed improvements in materials, processes and design are made and during which the product is tested and proven to be commercially producible. The objective is to make the needed improvements in materials, designs, and processes and to confirm that the product will perform as specified by constructing and testing engineering prototypes or pilot processes.

Stage 4: Commercial Validation: This is the period during which a product or process is prepared for introduction into the marketplace. The objective is to demonstrate the manufacturing techniques and establish test market validity of the new product or introduction of a new process in a system.

### NICE<sup>3</sup>

Stage 5: Production-Scale Commercial Demonstration: This is the period during which an industrial scale commercial demonstration is completed. The demonstration must be conducted long enough to gather sufficient data to determine the energy, environmental and economic impacts. At the end of the project, the technology/process must be ready for commercialization. All research and development activities must already be completed with successful test results prior to entering this stage.